

CLAIMS

1. A monolithic support coating apparatus, comprising means for dosing a
5 pre-determined quantity of a liquid component such quantity being such that it is
substantially wholly retained within the intended support, liquid component containment
means locatable on the top of a support to receive said quantity of liquid component. and
pressure means capable of withdrawing the liquid component from the containment means
into at least a portion of the support.

10 2. Apparatus according to claim 1, wherein the containment means comprises a base
permeable to the liquid component.

15 3. Apparatus according to claim 2, wherein the base comprises one or more of a
perforated or porous metal plate, sintered metal sponge, woven or non-woven fabric or a
synthetic open cell foam.

20 4. Apparatus according to claim 2 or 3, wherein the base or part thereof comprises a
moveable part.

5. Apparatus according to any one of the preceding claims, wherein the containment
means is shaped to cause differential coating of parts of the support.

25 6. Apparatus according to any one of the preceding claims, wherein the pressure means
comprises a source of vacuum acting on the bottom of the support.

7. Apparatus according to claim 6, wherein an air-permeable base is used to support
the bottom of the support.

30 8. Apparatus according to any one of the preceding claims, comprising sealing means
for sealing against undesired leakage or coating during withdrawal of liquid into the support.

9. A method of coating a monolithic support, comprising the steps of (a) locating a containment means on top of a support, (b) dosing a pre-determined quantity of a liquid component into said containment means, either in the order (a) then (b) or (b) then (a), and (c) by applying pressure or vacuum, drawing said liquid component into at least a portion of the support, and retaining substantially all of said quantity within the support.
10. A method according to claim 9, wherein vacuum is applied to the bottom of the support, causing air pressure to force the liquid component from the containment means into the support.
11. A method according to claim 9 or 10, used for the coating of catalyst or absorber supports.
12. A method according to claim 11, wherein the liquid component is a washcoat slurry or a solution of a catalyst component.
13. A catalyst comprising a support coated by the method of claim 11 or 12.

